

## KINGHORN BIODIVERSITY MONTHLY REPORT - DECEMBER 2021



Mallards on a calm evening at the Loch, 18 December 2021. Photo Robert Mill.

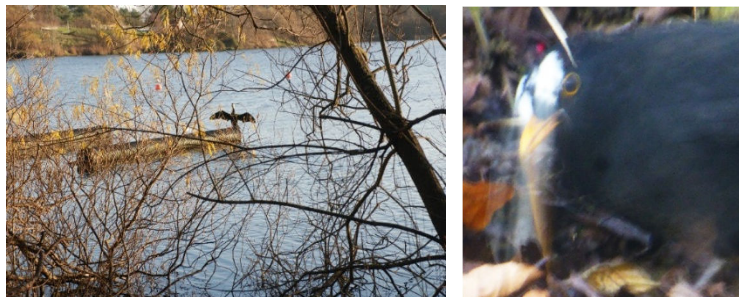
December 2021 yet again started off mild like the end of November. The middle of the month was a little colder with more normal temperatures for the time of year. However, in the last few days of the year, a plume of very warm air from the subtropics covered the UK, so that the national records for the mildest New Year's Eve night, the warmest December day, and the warmest New Year's Day were all broken. During a walk in North Queensferry before a New Year's Day family lunch, I saw a **Honey Bee** on a tree *Mahonia* - surely the earliest date I have ever seen a Honey Bee! December was, however, a pretty wet month resulting in very muddy paths around the Loch, although there were also some sunny days and others when the Loch was shrouded in mist.

Five new records for the Loch were added during December: two worms (one of them, New Zealand Flatworm, known for some time but not in the data passed to me when I started recording), one aphid and two fungi. One historic freshwater alga record (*Anabaena circinalis*, dating back to West, 1910) was also added. These six additions brought the Loch's total biodiversity up from 1,254 on 30 November to a final total for the year of **1,260** on 31 December. As usual, 'new Loch record(s)' is abbreviated NLR.



**New invertebrate Loch records, December 2021. Left:** Blue-grey Worm (*Octolasion cyaneum*), accompanied by millipedes, 3rd. Note the diagnostic pale yellowish tail of the worm at bottom right corner of photo (arrowed). **Centre:** New Zealand Flatworm (*Arthurwendyus triangulatus*), 3rd. **Right:** Giant Willow Aphid (*Tuberolachnus salignus*), 17th. All photos Robert Mill.

## AROUND THE LOCH



**Left:** Cormorant drying its wings, 17 December 2021. **Right:** Partly albino male Blackbird (*Turdus merula*) with mostly white forehead above the yellow beak, 10 December 2021. Photos Robert Mill.

**Birds:** No fewer than 54 bird species were recorded by myself and others around the Loch in November, a significant increase compared with recent months. As well as the diversity of species, there were some big counts for individual species: **Dabchick (Little Grebe)** had increased to at least 15 by the month's end, while there were 16 **Cormorant** at the Loch on 28th, and double-digit numbers on other days. A few **Goldeneye** were present most days, and eight **Goosander** were seen on 3rd. **Tufted**

**Duck** were also around for most of the month, with 15 counted on 15th. At least one **Water Rail** was present all month, with a second reported on some days. However, they were very elusive most of the time, only showing well for photographs near the year's end (see Paul Williams' and Pauline Bell's photographs on the Kinghorn Loch Wildlife Group [KLWG] Facebook page on 30th & 31st respectively, if you belong to this group). Two skeins of around 40 and 80 **Pink-footed Geese** flew over on 18th. A single **Lesser Black-backed Gull** may have decided to spend the winter at the Loch rather than migrating south; it was seen three times, on 3rd and 15th by myself and on 21st by Paul Williams (KLWG). Winter thrushes included single records of **Fieldfare** (17th), **Mistle Thrush** (27th: Pauline Bell, KLGW) and **Redwing** (15th). On 10th, I saw a partly albino male **Blackbird** with a mostly white forehead feeding beside the access road to The Ecology Centre. It was in deep shade and more or less constantly moving, so it was impossible to get a sharp photograph.

**Oystercatchers** (17th) and **Curlews** (25th, Paul Bird, KLGW) visited the horses' field during the month. **Sparrowhawk** was recorded on three dates (15th, 17th and 27th) by different observers, and I heard a **Tawny Owl** was hooting at dusk on 2nd. **Jays** were causing 'mayhem' on 25th (Paul Bird, KLGW). Paul Williams (KLWG) photographed a **Yellowhammer** at the Loch on 30th. The full list of birds recorded at the Loch during December 2021 is: *Blackbird, Black-headed Gull, Blue Tit, Bullfinch, Buzzard, Carrion Crow, Chaffinch, Coal Tit, Collared Dove, Common Gull, Coot, Cormorant, Curlew, Dunnock, Farmyard geese hybrids, Feral Pigeon, Fieldfare, Goldcrest, Goldeneye, Goldfinch, Goosander, Great Spotted Woodpecker, Great Tit, Grey Heron, Greylag Goose, Herring Gull, Jackdaw, Jay, Lesser Black-backed Gull, Little Grebe or Dabchick, Long-tailed Tit, Magpie, Mallard, Mistle Thrush, Moorhen, Mute Swan, Oystercatcher, Pheasant, Pied Wagtail, Pink-footed Goose, Redwing, Robin, Rook, Song Thrush, Starling, Sparrowhawk, Tawny Owl, Treecreeper, Tree Sparrow, Tufted Duck, Water Rail, Wood Pigeon, Wren, Yellowhammer.*

**Mammals and amphibians:** A **Bank Vole** was disturbed from under a tree stump by Lee Brown on 3rd when he was turning it over with myself while we were searching for invertebrates. Lee also saw a **Brown Hare** near the TEC building on 13th, and one was seen again on 26th by Paul Williams (KLWG). **Mole hills** were again evident all month in various places around the Loch.



**Left:** White-legged Snake Millipedes, adults and young (*Tachypodoiulus niger*), 3 December 2021. **Inset bottom left:** millipede eggs. Photos Robert Mill.

**Invertebrates ('minibeasts'):** Even fewer invertebrates were seen during December than in November. No **butterflies** were seen and the only **moth** record was another of the mine of the **Golden Pigmy moth (Stigmella aurella)** on 1st. No **bees, wasps** or **beetles** were seen during December. However, on 17th I spotted a grey insect covered with black spots moving slowly down the trunk of a large willow tree not far from the bird hide. My initial thoughts were that it was some sort of weevil, but after eliminating those and most larger bugs, I eventually identified it as **Giant Willow Aphid (Tuberolachnus salignus: NLR)**. Being around 5-6 mm long, it is one of the world's two largest aphid species, one reason why I was



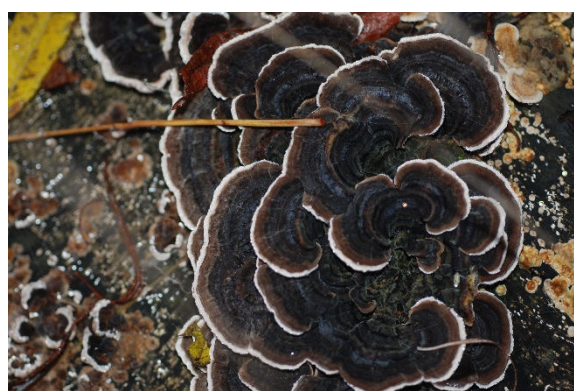
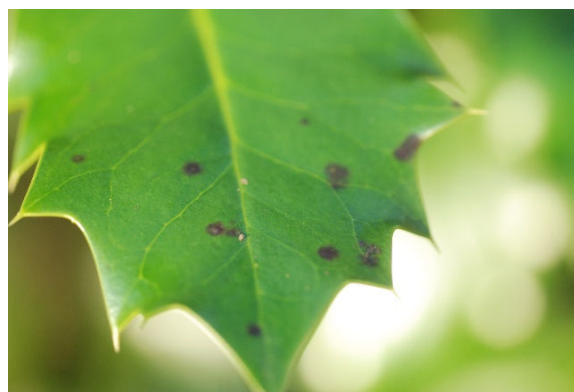
initially fooled into thinking it was a weevil or some other kind of insect considerably larger than the vast majority of aphids. No **hoverflies** were recorded despite relatively mild weather most of the month. The **bluebottle** *Calliphora vicina* was once again basking on tree trunks (17th), while mines of *Agromyza pseudoreptans* were still present on nettle leaves (1st), the only leaf-mining fly recorded in December. Large numbers of the **White-legged Snake Millipede** (*Tachypodoiulus niger*) were found under tree stumps by Lee Brown and myself on 3rd, including eggs and young. Under the stumps we also found a flat-backed millipede, *Brachydesmus superus*, a **New Zealand Flatworm** (*Arthurdendyus triangulatus*) and a **Blue-grey Worm** (*Octolasion cyaneum*) -- both the latter worm species were NLRs although the flatworm was previously known to TEC staff. All the NLRs are illustrated at the foot of the first page of this report.



Borage (*Borago officinalis*), 18 December 2021. Photo Robert Mill.

**Flowering plants and ferns:** No new records of flowering plants and ferns were made at the Loch during December. **Sun Spurge** and **Purple Ramping Fumitory** were still in bloom on 1st as well as masses of **Gorse**. Other plants remaining in flower during December included **Charlock, Bramble, Hogweed, Hedge Parsley, Herb Robert, Red Campion, Borage, White and Red Dead-nettles, Common Daisy, Corn Marigold, Prickly and Smooth Sow-thistles**. Some of these finished before the middle of the month but others such as the Borage and the two dead-nettles and the Red Campion remained in flower until at least my penultimate visit (18th) and probably till the end of the year.

**Fungi, lichens and bryophytes:** At least four species of **fungi** were recorded in December. Two of them, the **Holly Leaf Spot** (*Coniothyrium ilicis*) and **Common Jelly Spot** (*Dacrymyces stillatus*) were NLRs. The others were **Turkeytail** (*Trametes versicolor*), found in numerous colour variants on the tree stumps that Lee Brown and myself were inspecting (3rd, also 18th) and **Bramble Rust** (*Phragmidium violaceum*). Four lichen species (*Xanthoria parietina*, *Lepraria incana*, *Lecidella elaeochroma* and *Lecanora chlorotera*) were also noted, all of them also recorded in previous months.



**DECEMBER FUNGAL RECORDS. Top left:** Common Jelly Spot (*Dacrymyces stillatus*), 3 December 2021. New Loch record. **Top right:** Holly Leaf Spot (*Coniothyrium ilicis*), 17 December 2021. New Loch record. **Bottom left and right:** Two colour variants of Turkeytail (*Trametes versicolor*), 18 December 2021 All photos Robert Mill.

## VILLAGE, BEACH AND COASTAL PATH



Lesser Periwinkle (*Vinca minor*), found flowering by coastal path, 30 December 2021. Photo Robert Mill at the same place on 7 April 2021.

A **Hump-backed Whale** spent most of December in the Firth of Forth, with numerous sightings off Kinghorn throughout the month and into the New Year. This is the second large whale species to visit the area during 2021, the first being the **Sei Whale** that was present for much of the spring and early summer before it finally died between North Queensferry and Dalgety Bay in November. On land, a very wet **Roe Deer** was above the Burnside Path on 23rd (Tim Nicholson, KLWG)

Our two walks at Seafield on 5th and 13th resulted in sightings of **Redshank, Turnstone, Oystercatcher, Cormorant** and **Shag** as well as the common gull species. Towards the end of the second walk, on 13th, we saw a **Rock Pipit** on the beach at Seafield, and moments later two **Purple Sandpipers** were spotted on low rocks just offshore. The same afternoon, Tim Nicholson saw a **Red-throated Diver** in the bay further along towards Kirkcaldy, while on 12th a **Great Northern Diver** was seen off Kinghorn Ness (Ian Murray, eBird website). Tim also photographed a drake **Red-breasted Merganser** off the coastal path on 2nd and saw **Puffins** off Kinghorn on 20th.

On a visit to Kinghorn beach on 21st, my wife and I noted that at least 18 **Fulmars** had returned to their ledges on the cliffs, where they will hopefully remain until they have raised their young later in 2022. **Eiders** were seen offshore on the same day, as well as off Pettycur Bay on 26th and off the coastal path on 30th. Also on 30th, 100 **Eider**, one **Long-tailed Duck** and five **Shag** were off Pettycur Bay (Michael Cook, eBird website), while my wife and I saw around 15 **Long-tailed Ducks** off the coastal path on the same day, heading towards Kinghorn harbour, and some were off Kinghorn Ness on 15th (Maksymilian Roman, eBird website). Pauline Bell photographed a female **Kestrel** at Seafield on 12th (KLWG).

**Wallflower** was flowering at Pettycur Bay on 26th, while **Lesser Periwinkle** was in bloom along the coastal path on the penultimate day of 2021, when the leaves of next year's **Dandelions** and **Alexanders** plants were already well-developed.

## REFERENCE

West, G. (1910). A further contribution to a comparative study of the dominant phanerogamic and higher cryptogamic flora of aquatic habit in Scottish lakes. *Proc. Roy. Soc. Edinburgh* 30: 65--181 + 121 figures.